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APPLICATION NO	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO	CONFIRMATION NO
09/893,973	06/29/2001	Sun-Taek Shim	1751-290	6142

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EXAMINER
PRATT, HELEN F

ART UNIT	PAPER NUMBER
1761	7

DATE MAILED: 06/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/893,973	SHIM ET AL.	
	Examiner	Art Unit	
	Helen F. Pratt	1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 April 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 2, 3, 6, 8, 10-12* is/are rejected.

7)☒ Claim(s) *4,5,7 and 9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 6, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (4,336,273) in view of Hsieh (4,844,933) and Subramaniam et al. (5,645,876) and Mori (JP 63258558A) and Simpukas (6,139,890).

Lee discloses a process of treating vegetables by washing, seed removal cutting into halves, chunks, slices or strips and then heating the cut vegetables to high temperatures of 121 C for 20 minutes which are considered to be sterilizing temperatures (col. 3, lines 65-70, col. 4, lines 1-5, col. 6, lines 15-35). Claim 1 differs from the reference in optionally sterilizing the surfaces of the peppers and in the use of high-pressure steam, drying the peppers and grinding the peppers. Sterilizing the surfaces of the peppers is an optional limitation. However, Simpukas discloses that it is known to reduce bacterial contamination of vegetables by the use of chemicals such as caroboxylic acids (col. 3, lines 3-40). Hsieh et al. disclose that it is known to use high-temperature and pressure steam (abstract and col. 4, lines 34-40). The steam is considered to be high temperature because steam is known to be made when water is heated above 100 C. and the specification discloses a temperature range of 90-120 C. (page 7, lines 11-17). The process is conducted at from 5 to 50 psi (col. 4, lines 35-40).

Subramaniam et al. disclose that it is known to dehydrate vegetables by conventional methods such as vacuum drying or forced air drying (col. 3, lines 10-14). Freeze drying is also considered to be conventional. Mori et al. disclose that it is known to dry red pepper, and grind it (abstract). Therefore, it would have been obvious to use high pressure steam and chemicals, and, to grind and then dehydrate the vegetable in the process of Lee.

Claim 6 further requires treating at 90-120 C for 1-10 minutes. Hsieh et al. disclose that vegetables can be treated with steam from 10 seconds up to five minutes and disclose that it would have been within the skill in the art to determine the temperature of the steam and length of injection into the vessel depending on the characteristics of the vegetable product being treated, and in particularly the subsequent treatment of the product. Retention of volatile oil and appearance is also said to vary from one plant to another (col. 4, lines 48-66). Therefore, it would have been obvious to treat the peppers for a particular length of time in the process of the combined references.

Claim 12 is to removing foreign objects and material before grinding using a laser and after grinding to separate iron particles from the particles after grinding. However, removing foreign particles is routine in the food processing field and it would have been obvious to remove them at points at which it was practical. For instance, magnets are routinely used in processing cereals to remove foreign objects. Therefore, it would have been obvious to remove foreign object from the peppers.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over the above combined references as applied to claims 1, 6, 12 above, and further in view of Jakobsson et al.

Claim 2 further requires deep-freezing and storing the peppers and claim 3 freezing at particular times and temperatures. However, deep freezing is a well known method of treating vegetables as seen in the frozen food section of grocery stories. Also, Jakobsson et al. disclose that it is known to blanch apple pieces and then dry by convention and to freeze them (abstract). Therefore, it would have been obvious to freeze vegetables after the treatment of claim 1.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over the above combined references as applied to 1, 6, and 12 and further in view of Waitman et al.

Claim 8 further requires treating the sterilized peppers with a sugar solution. Applicants disclose on page 4, lines 1-5 that using a glucose solution is conventional. Waitman et al. also disclose that it is known to infuse a hydrophilic carbohydrate into fresh grapes followed by drying (abstract). Therefore, it would have been obvious to treat peppers with a sugar solution in the process of the combined references.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over the above combined references as applied to claims 1, 6, 12 and further in view of Linaberry (3,973,047).

Two stages of drying are disclosed as in claim 10 by Linaberry et al. in col. 5, lines 5-35, in particularly green bell pepper (lines 45-46). Therefore, it would have been obvious to dry at the claimed temperatures.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over the above combined references as applied to claims 1, 6, 12 above, and further in view of Costanzo et al. (5,518,740).

Claim 11 requires that the peppers are dried by deep freezing then freeze dried. Costanzo et al. disclose that it is known to prefreeze ingredients and then to freeze dry fruit. Freeze drying is carried out at plus 30 degrees C. This would encompass the claimed range (col. 6, lines 30-49). Therefore, it would have been obvious to freeze and then freeze dry other plant materials such as peppers as the process is known.

Allowable Subject Matter

Claims 4, 5, 7, 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen F. Pratt whose telephone number is 703-308-1978. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Milton Cano, can be reached on (703) 308-3959. The fax phone number for the organization where this application or proceeding is assigned is 703-305-7718.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

HF Pratt

HELEN PRATT
PRIMARY EXAMINER